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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,518

03/02/2007

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FREGOSO 1

2463

1444 7590 09/28/2009  
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EXAMINER

TISCHLER, FRANCES

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,518	<b>Applicant(s)</b> FREGOSO-INFANTE ET AL.	
	<b>Examiner</b> FRANCES TISCHLER	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

The claim objections not discussed below are deemed withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

**Claims 15 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yazaki et al (US 6,580,005) in view of Mays (US 3,801,273).**

The rejection is adequately set forth in the office action dated 3/3/09 and is incorporated herein by reference.

### ***Response to Arguments***

Applicant's arguments filed 6/3/09 have been fully considered but they are not persuasive.

Applicant submits that Mays discloses a process that results in a gel and therefore further treatment is needed; that there is no motivation to combine Mays with Yazaki and one of ordinary skill in the art would have no motivation to substitute Yazaki's metal carbonate with Mays' metal hydroxide.

Applicant's arguments are not convincing:

(1) Mays' process may result in a gel because Mays saponifies not only PET but also cellulosic fibers. However, the point is that Mays teaches to perform saponification

Art Unit: 1796

with a metal hydroxide and with either a monoalcohol or dialcohol to achieve the same result.

(2) Yazaki alone, without Mays, reads on Applicant's claim since the instant claim language is not exclusive of other saponification agents besides the claimed strong metal base.

(3) Most importantly, Yazaki discloses, as discussed in the office action, the use metal hydroxide because metal hydroxide increases the efficiency of the decomposition reaction while metal carbonate is used only because it is cheaper. One of ordinary skill in the art would therefore know to use only metal hydroxide if cost is not an issue, or to use metal hydroxide with metal carbonate in any ratio. Mays is used herein to further show that it is known in the art to use metal hydroxide alone.

Applicant submits that the instant application claims a water-immiscible alcoholic reaction medium which allows for cooling the reaction medium, adding sufficient water to dissolve the TPA salt, and do a liquid-liquid separation, while Yazaki teaches ethylene glycol, which is a water-miscible alcohol; that Mays teaches that monoalcohols and dialcohols are interchangeable but that they must form aqueous solutions of at least 2%.

Applicant's arguments are not convincing:

(1) Mays is used herein to show that it is known that in the saponification of PET (even if the PET is mixed with other polymers) with metal hydroxide one can use mono or dialcohols interchangeably.

(2) The monoalcohols used by Mays are the same as claimed by Applicant so they are necessarily miscible in water to the same extent, regardless if Applicant claims a water-immiscible alcohol. For instance, 2-octanol is slightly water soluble, 2-pentanol is very water soluble, the various butanols are also soluble, etc. Said alcohols are claimed by Applicant in claim 16. Please note that Applicant claims in the instant specification (6:24-25) that the preferred alcohol is a combination of methanol/ethanol, where said alcohols are infinitely water soluble.

(3) It would have been obvious to replace Yazaki's dialcohol with Mays' monoalcohol since Mays teaches that said alcohols are interchangeable when performing a saponification reaction of PET with a metal hydroxide.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANCES TISCHLER whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 7:30AM - 5:00 PM; off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

Frances Tischler  
Examiner  
Art Unit 1796

/FT/